4-21-2014

Meeting the Healthcare Needs of a Rural State

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INTRODUCTION

Telehealth and telemedicine technologies have the potential to change the healthcare landscape throughout Idaho. Telehealth is the use of technology to deliver healthcare remotely. Telemedicine is the remote diagnosis and treatment of patients by means of telecommunications technology. Telemedicine is the remote diagnosis and treatment of patients by means of telecommunications technology, such as two-way video and audio, email, and smart phones. These technologies have been shown to save patients, providers, and insurers millions of dollars, while improving the efficiency of the healthcare system (Hudson, 2005).

Many of Idaho's residents live in rural and frontier areas with limited healthcare access. Currently, the state is lacking a much-needed, integrated telehealth system to deliver quality healthcare in rural areas.

The purpose of this research was to identify the factors that create a need for telehealth services in Idaho and compare these conditions to Alaska, a state which enjoys the largest fully integrated telehealth system in the world.

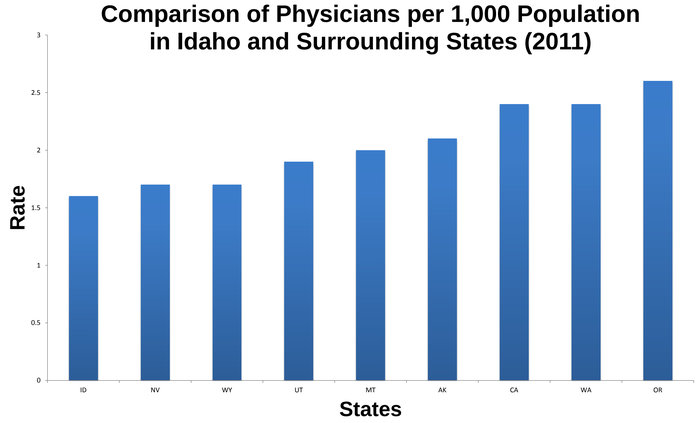
RESEARCH METHODS

The following data sources were used in this study.

1. Annual reports of the American Medical Association from 1996 to 2011, obtained from the Indicators Idaho website. Data was extracted and used to compare physician rates throughout the United States.
2. Data on state demographics was obtained from the United States Census Bureau, the Centers for Disease Control and Prevention, and the United States Department of Health and Human Services Health Resources and Services Administration.
3. Findings published by the Institute of Social and Economic Research on Alaska's telehealth system were reviewed to describe the history, implementation, and effects of the state's telehealth system established in 1996.

RESULTS

Comparison of Physicians per 1,000 Population in Idaho and Surrounding States (2011)

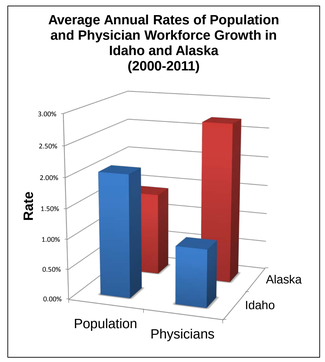


Comparison of Indicators: Idaho and Alaska

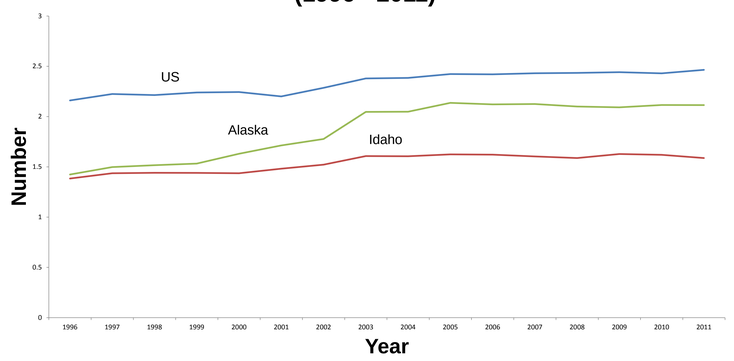
Indicator	Idaho	Alaska
Rank for number of physicians per 100,000 residents	50	31
Percentage of population in rural areas	29%	34%
Rank for land area	11th	1st
Rank by population	39th	47th
Percentage below poverty level	15.1%	9.6%
Rank for population density	44th	50th
Rank for suicides	6th	2nd
Percentage of counties containing a Medically Underserved Areas/Populations	84%	77%
In state medical school?	No	No
Percentage of counties containing Health Professional Shortage Areas or Populations	100%	83%

Data obtained from Beedasy (2010), Indicators Idaho (2011), the Centers for Disease Control and Prevention (2010), the United States Department of Health and Human Services, Health Resources and Services Administration (2014), and the United States Census Bureau (2010).

Average Annual Rates of Population and Physician Workforce Growth in Idaho and Alaska (2000-2011)



Number of Physicians per 1,000 Population (1996 - 2011)



RESULTS

The potential impact of telehealth in Idaho can be realized by its impact in Alaska. Alaska's telehealth network, the Alaska Federal Health Care Access Network (AFHCAN), has allowed the following (Hudson, 2005):

Cost

- Saved Alaska at least $38 million since 2003
- Saved Alaska $8.5 million in travel for Medicaid patients in 2012
- Every $1 spent by Medicaid on reimbursement saves $10.54 on travel

Quality

- Eliminated travel for 75 % of specialty care patients and 25 % of primary care patients
- Prevented 4,777 and 1,444 lost work days and lost school days, respectively since 2003

Access

- Covers 40% of the population (212,000 beneficiaries)
- 3,000+ providers have engaged in 160,000 telehealth visits since 2001

CONCLUSIONS

Idaho and Alaska are rural states that share a similar healthcare landscape. Over the last decade, growth in the number of physicians in Idaho has lagged behind Alaska's growth. Following the implementation of telehealth in 1996, Alaska grew their physician workforce and targeted three main healthcare concerns – access, quality, and cost. Idaho has the opportunity to address these concerns with a similar integrated telehealth system. This infrastructure has the potential to benefit rural Idaho residents who represent 29% of the population.

Barriers to a statewide system include reimbursement, cost, fear of change, and licensure. Future initiatives should focus on developing sustainable telehealth component in rural communities across America.

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